Frequently Asked Questions about Psoriasis

What is psoriasis?

Psoriasis is a chronic (long-lasting) disease that affects the skin. Scaling and *inflammation* of the skin are typical of the disease. Scaling occurs when cells in the outer layer of skin reproduce faster than normal and pile up on the skin's surface. Psoriasis is not contagious. People with psoriasis may have discomfort, including pain and itching, restricted motion in their joints, and emotional distress.

The National Psoriasis Foundation estimates that psoriasis affects about 5.5 million people in the United States. The disease affects mostly adults and occurs about equally in men and women.

In its most common form, psoriasis results in patches of thick, red skin covered with silvery scales. These patches, sometimes called plaques or lesions, usually itch and may burn. The skin at the joints may crack. Psoriasis most often affects the elbows, knees, scalp, lower back, face, palms, and soles of the feet, but it can affect any skin site. The disease may also affect the fingernails, the toenails, and other tissues.

Some people with psoriasis also have joint inflammation that produces arthritis symptoms. This condition is called *psoriatic arthritis*.

What causes psoriasis?

Recent research indicates that psoriasis is a disorder of the *immune system*. The immune system includes a type of white blood cell, called a T cell, that normally helps protect the body against infection and disease. Scientists now think that in psoriasis, an abnormal immune system causes activity by T cells in the skin. These T cells release substances called *cytokines* that trigger the inflammation and excessive skin cell buildup of psoriasis.

People with psoriasis may notice that there are times when their skin worsens, then improves. Conditions that may cause flare-ups include changes in climate, infections, stress, and dry skin. Also, certain medicines such as *beta-blockers*, *lithium*, and some other drugs may trigger an outbreak or worsen the disease.

How is psoriasis diagnosed?

Doctors usually diagnose psoriasis after a careful exam of the skin. However, diagnosis may be difficult because psoriasis often looks like other skin diseases. A pathologist may assist with diagnosis by examining a small skin sample (biopsy) under a microscope.

There are several forms of psoriasis.

- Plaque psoriasis (*psoriasis vulgaris*), the most common form. In plaque psoriasis, lesions have a reddened base covered by silvery scales.
- Guttate psoriasis. Small, drop-like lesions appear on the trunk, limbs, and scalp. Guttate psoriasis is most often triggered by bacterial infections.
- Pustular psoriasis. Blisters of noninfectious pus appear on the skin. Medicines, infections, emotional stress, or exposure to certain chemicals can bring on attacks of this form of psoriasis. It may affect either small or large areas of the body.
- Inverse psoriasis. Large, dry, smooth, vividly red plaques occur in the folds of skin near the genitals, under the breasts, or in the armpits. Inverse psoriasis is related to increased sensitivity to friction and sweating and may be painful or itchy.
- Erythrodermic psoriasis. Itching or pain occurs along with widespread reddening and scaling of the skin. A severe sunburn, use of oral steroids (such as cortisone), or a drug-related rash can trigger this type of psoriasis.

What is the treatment for psoriasis?

Doctors generally treat psoriasis in a "1-2-3" step approach, based on:

- the severity of the disease
- how much skin is involved
- the type of psoriasis
- how the individual responds to initial treatments.

In step 1, medicines are applied to the skin (*topical* treatment). Step 2 focuses on light treatments (*phototherapy*). Step 3 involves taking medicines internally, by mouth (orally) or injection.

Over time, affected skin can become *resistant* to certain treatments. Also, a treatment that works very well in one person may have little effect in another. Thus, doctors commonly use a trial-and-error approach to find a treatment that works. They may switch treatments periodically (for example, every 12 to 24 months) as needed. A combination of therapies often can be more effective than a single therapy.

Newer, more effective drug treatments for both psoriasis and psoriatic arthritis are becoming available. Recent research has led to a better understanding of how the immune system triggers these diseases. In January 2002, the Food and Drug Administration (FDA) approved the new drug *etanercept* (Enbrel) to treat psoriatic arthritis. Etanercept had previously been approved for treatment of *rheumatoid arthritis* (RA). While not yet approved by the FDA to treat psoriasis, some studies have shown that the drug may be helpful to many people with psoriasis.

Etanercept and similar drugs, such as infliximab (Remicade), block the action of a *cytokine* called *tumor necrosis factor alpha* (TNF-alpha). Cytokines help set off the inflammation seen in psoriasis. Other drugs in development act by blocking the inflammatory process in other ways. While these new drugs have exciting potential for persons with psoriasis, they may also have serious side effects.

Topical treatment for psoriasis

Treatments applied directly to the skin sometimes work well to clear psoriasis.

- *Corticosteroids* are available in different strengths and are usually applied twice a day. Short-term treatment often can improve but not completely clear psoriasis. Long-term use or overuse of stronger products can worsen the psoriasis, thin the skin, and lead to internal side effects and resistance to the treatment's benefits.

- *Calcipotriene* is a synthetic form of vitamin D3. (It is not the same as vitamin D supplements.) Applying calcipotriene ointment twice a day controls excessive production of skin cells. It is not recommended for the face or genitals.

- Coal tar can be applied to the skin, used in a bath solution, or used on the scalp as a shampoo. It is available in different strengths. It has a number of drawbacks including being messy, having a strong odor, and causing staining of skin and clothing.

- *Anthralin* is used as an ointment, cream, or paste to treat psoriasis lesions. However, this treatment often fails to adequately clear lesions and has other drawbacks.

- *Tazarotene* is a topical *retinoid*. It is a fast-drying, clear gel applied to the skin. It does not act as quickly as topical steroids, but it has fewer side effects. Women of childbearing age should use birth control when using it.

- Salicylic acid can help remove scales. It is most effective when combined with topical steroids, anthralin, or coal tar.

- Bath solutions and moisturizers help some people.

Phototherapy for psoriasis

Ultraviolet (UV) light from the sun causes activated T cells in the skin to die (*apoptosis*). This reduces inflammation and slows the overgrowth of skin cells that causes scaling. Daily, short, nonburning exposure to sunlight clears or improves psoriasis in many people. More controlled forms of artificial light treatment include:

- Ultraviolet B (UVB) phototherapy. Some artificial sources of UVB light are similar to sunlight. Narrowband UVB treatment is superior to broadband UVB, but burns can be more severe and last longer than with broadband UVB. Some doctors will start with UVB treatments instead of topical agents. UVB phototherapy can also help treat widespread psoriasis and lesions that resist topical treatment. You can use a light panel or light box at the doctor's office or at home.

- *Psoralen* plus ultraviolet A (PUVA) phototherapy. This treatment combines oral or topical use of a medicine called psoralen with exposure to ultraviolet A (UVA) light. Psoralen makes the body more sensitive to this light. PUVA is normally used when more than 10 percent of the skin is affected or when rapid clearing is needed. While more effective than UVB phototherapy, long-term treatment can increase the risk of skin cancers.

Light therapy is now being combined with other therapies, such as the retinoid-like *acitretin*. Other combinations use UVB plus coal tar and *anthralin-salicylic acid* paste or PUBA with oral retinoids and *hydroxyurea*.

Systemic treatment for psoriasis

Doctors sometimes prescribe medicines that are taken internally for more severe forms of psoriasis, particularly when more than 10 percent of the body is involved.

- *Methotrexate* slows cell production by suppressing the immune system. It can cause liver damage or other side effects. As a precaution, doctors do not prescribe it for people with long-term liver disease or anemia. Pregnant women and women who are planning to get pregnant should not use methotrexate.

- *Cyclosporine* also suppresses the immune system. It may provide quick relief of symptoms, but it usually works only while it's being taken. Cyclosporine has a number of side effects. Women who are pregnant or breast-feeding should not use it.

- *Hydroxyurea* is less toxic but also less effective than methotrexate or cyclosporine. It is sometimes combined with PUVA or UVB. It also has side effects and must be avoided by pregnant women or those who are planning to become pregnant.

- *Retinoids* have vitamin A-like properties. They may help severe cases of psoriasis that do not respond to other therapies. Because it can cause birth defects, women taking it must protect themselves from pregnancy beginning 1 month before through 3 years after treatment. Most people have a return of psoriasis after the treatment is stopped.

- *Antibiotics* are used when an infection triggers the outbreak of psoriasis.

What research is being done on psoriasis?

Psoriasis may be inherited (runs in families). Researchers are trying to find a gene or genes that cause or contribute to the disease. Scientists are also working to improve our understanding of what happens in the body to trigger this disease. In addition, much research is focused on developing new and better treatments. For example, treatments that target the immune system to block the disease, combine topical medications, and use lasers.

For more information...

You can find out more information about psoriasis by contacting the National Women's Health Information Center at (800) 994-9662 or contact the following organizations.

National Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMS)
Phone Number(s): (877) 226-4267, (301) 495-4484
Internet Address: http://www.niams.nih.gov

American Academy of Dermatology
Phone Number(s): (888) 462-3376, (847) 330-0230
Internet Address: http://www.aad.org

National Psoriasis Foundation
Phone Number(s): (800) 723-9166
Internet Address: http://www.psoriasis.org

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